

What is claimed is:

1. A process for managing a plurality of data items contained in a plurality of pages which are sequentially arranged in accordance with predetermined relationships,
5 comprising the steps of:

(a) storing information on an amount of available space in each of said plurality of pages;

10 (b) acquiring an amount of available space in each of first and second pages based on said information stored in step (a), when a first data item is inserted into or deleted from a third page, said plurality of pages include the first, second, and third pages, the first page precedes the third page in sequential arrangement of the plurality of pages, and the second page follows the third
15 page in the sequential arrangement; and

20 (c) moving at least one second data item contained in said third page to said first page or said second page according to said amount of available space in each of said first and second pages, before insertion of said first data item into said third page or after deletion of said first data item from said third page.

25 2. A process according to claim 1, wherein, in said step (a), when said amount of said available space is equal to or less than a predetermined amount, said information indicates that substantially no available space exists.

3. A process according to claim 1, wherein, in said step (c), when both of said first and second pages have sufficient available space, said at least one second data item is moved to said second page.

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4. A process according to claim 1, wherein, in said step (a), said amount of the available space is classified into one of a plurality of ranges of amounts of the available space, and said information on the amount of the 10 available space indicates one of the plurality of ranges.

5. A process according to claim 4, wherein one of said plurality of ranges including the biggest amount of the available space is wider than the other of said 15 plurality of ranges.

6. A computer-readable storage medium storing a program which makes a computer execute a process for managing a plurality of data items contained in a plurality 20 of pages which are sequentially arranged in accordance with predetermined relationships, said program further makes said computer realize:

an available-space-information storing unit which stores information on an amount of available space in 25 each of said plurality of pages;

an adjacent-space-information acquiring unit which acquires an amount of available space in each of

first and second pages based on said information stored based on said information stored in said available-space-information storing unit, when a first data item is inserted into or deleted from a third page, said plurality of pages include the first, second, and third pages, the first page precedes the third page in sequential arrangement of the plurality of pages, and the second page follows the third page in the sequential arrangement; and

a moving unit which moves at least one second data item contained in said third page to said first page or said second page according to said amount of available space in each of said first and second pages, before insertion of said first data item into said third page or after deletion of said first data item from said third page.

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7. A data management apparatus for managing a plurality of data items contained in a plurality of pages which are sequentially arranged in accordance with predetermined relationships, comprising:

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an available-space-information storing unit which stores information on an amount of available space in each of said plurality of pages;

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an adjacent-space-information acquiring unit which acquires an amount of available space in each of first and second pages based on said information stored based on said information stored in said available-space-information storing unit, when a first data item is

inserted into or deleted from a third page, said plurality
of pages include the first, second, and third pages, the
first page precedes the third page in sequential
arrangement of the plurality of pages, and the second page
5 follows the third page in the sequential arrangement; and
a moving unit which moves at least one second
data item contained in said third page to said first page
or said second page according to said amount of available
space in each of said first and second pages, before
10 insertion of said first data item into said third page or
after deletion of said first data item from said third page.